

IN THE CLAIMS:

1. (currently amended) A solid oxide fuel cell stack comprising:

a plurality of modules, each module comprising an elongate hollow member, each hollow member having at least one passage extending longitudinally through the hollow member for the flow of a reactant, each hollow member having two parallel walls defining the passage, each wall having a flat exterior surface, at least one of the modules including a plurality of solid oxide fuel cells, the solid oxide fuel cells being arranged on at least one of the flat exterior surfaces of the at least one module, the exterior surfaces of adjacent modules being arranged substantially parallel and spaced apart, wherein the walls are porous so that during operation fuel flows through the walls to contact the solid oxide fuel cells; and

at least one connector connecting characterised in that at least one an end of a first each module is connected to an end of an adjacent a second module by a connector to allow reactant to flow sequentially through the passages in each of the modules and such that thermal and mechanical stresses in the solid oxide fuel cell stack are reduced.

Claims 2-26 are cancelled.

27. (currently amended) A solid oxide fuel cell stack as claimed in claim 1, further comprising a manifold for the supply of a reactant and a manifold for the removal of the reactant, each module having a first end and a second end, the first end of a first one of the modules being connected to the manifold for the supply of reactant to the passage of a first one of the modules, the second end of a second one of the modules being connected to the manifold for the removal of reactant from the passage of the second one of the modules, the second end of the first one of the modules being connected to the first end of an a first adjacent module by a the at least one connector, the first end of the second one of the

modules being connected to the second end of an a second adjacent module by a another at least one connector, and passages of adjacent modules being connected by associated connectors, wherein the connector at the second end of the first one of the modules is the only connection between the passages of the first module and the first adjacent module and the connector at the first end of the second one of the modules is the only connection between the passages of second module and the second adjacent module.

28. (Cancelled)

29. (previously presented) A solid oxide fuel cell stack as claimed in claim 1, wherein each hollow member has a plurality of passages.

30. (withdrawn) A solid oxide fuel cell stack as claimed in claim 1 wherein at least one hollow member has a different length to the remainder of the hollow members.

31. (currently amended) A solid oxide fuel cell stack comprising a plurality of modules, each module comprising an elongate hollow member, each hollow member having at least one passage extending longitudinally through the hollow member for the flow of a reactant, each hollow member having two parallel flat surfaces, at least one of the modules including a plurality of solid oxide fuel cells, the solid oxide fuel cells being arranged on at least one of the flat surfaces of the at least one module, the surfaces of adjacent modules being arranged substantially parallel and spaced apart, characterized in that at least one end of each module is connected to an end of an adjacent module by a connector to allow reactant to flow sequentially through the modules and such that thermal and mechanical stresses in the solid oxide fuel cell stack are reduced, A solid oxide fuel cell stack as claimed in claim 1 wherein the at least one module includes a plurality of fuel cells on both of the flat surfaces of the module.

32. (previously presented) A solid oxide fuel cell stack as claimed in claim 1 wherein each module includes a plurality of solid oxide fuel cells.

33. (previously presented) A solid oxide fuel cell stack as claimed in claim 1 wherein at least one of the modules comprises a heat exchanger .

34. (previously presented) A solid oxide fuel cell stack as claimed in claim 1 wherein at least one of the modules comprises a fuel reformer.

35. (withdrawn) A solid oxide fuel cell stack as claimed in claim 34 wherein the at least one module has a catalyst arranged in the at least one passage through the hollow member.

36. (withdrawn) A solid oxide fuel cell stack as claimed in claim 35 wherein the catalyst is arranged on the surfaces of the at least one passage through the hollow member.

37. (withdrawn) A solid oxide fuel cell stack as claimed in claim 1 wherein a member is arranged in the at least one passage through the hollow member.

38. (withdrawn) A solid oxide fuel cell stack as claimed in claim 37 wherein the member is a coil of wire.

39. (withdrawn) A solid oxide fuel cell stack as claimed in claim 37 wherein the member is arranged and configured to define a helical flow path through the with the hollow member.

40. (withdrawn) A solid oxide fuel cell stack as claimed in claim 37, wherein a catalyst is arranged on the member.

41. (withdrawn) A solid oxide fuel cell stack as claimed in claim 1 wherein each module is connected to an adjacent module by an end cap.
42. (currently amended) A solid oxide fuel cell stack as claimed in claim 1 wherein the centre lines of adjacent modules are arranged substantially in the same plane to form an undulating arrangement of modules.
43. (withdrawn) A solid oxide fuel cell stack as claimed in claim 1 wherein the centre lines of adjacent modules are arranged in different planes to form a helical arrangement of modules.
44. (currently amended) A solid oxide fuel cell stack as claimed in claim 43 wherein the centre lines of adjacent modules are arranged at any one of angles ~~an angle of~~ 45°, 60°, 72° or 90°.
45. (withdrawn) A solid oxide fuel cell stack as claimed in claim 1 wherein at least one damping member is arranged between adjacent modules.
46. (withdrawn) A solid oxide fuel cell stack as claimed in claim 45 wherein the damping member is a resilient corrugated member, or a resilient C shaped member.
47. (withdrawn) A solid oxide fuel cell stack as claimed in claim 45 wherein the damping member is metallic.
48. (withdrawn) A solid oxide fuel cell stack as claimed in claim 47 wherein the damping member has an electrically insulating coating.
49. (previously presented) A solid oxide fuel cell stack as claimed in claim 1 wherein each solid oxide fuel cell comprises an anode electrode, a cathode electrode and a solid oxide electrolyte.

50. (currently amended) A solid oxide fuel cell stack comprising a plurality of modules, each module comprising an elongate hollow member, each hollow member having at least one passage extending longitudinally through the hollow member for the flow of a reactant, each hollow member having two parallel flat surfaces, at least one of the modules including a plurality of solid oxide fuel cells, the solid oxide fuel cells being arranged on at least one of the flat surfaces of the at least one module, the surfaces of adjacent modules being arranged substantially parallel and spaced apart, characterized in that at least one end of each module is connected to an end of an adjacent module by a connector to allow reactant to flow sequentially through the modules and such that thermal and mechanical stresses in the solid oxide fuel cell stack are reduced wherein each solid oxide fuel cell comprises an anode electrode, a cathode electrode and a solid oxide electrolyte, A solid oxide fuel cell stack as claimed in claim 49 wherein the anode electrodes are arranged on the flat surfaces of the elongate hollow member.

51. (withdrawn) A solid oxide fuel cell stack as claimed in claim 1 wherein the at least one passage of at least one of the elongate hollow members has a varying cross-sectional area throughout its length.

52. (withdrawn) A solid oxide fuel cell stack as claimed in claim 1 wherein the connector comprises a substantially T-shaped member having a stem and flanges at one end of the stem, the stem of the T-shaped member is positioned between the ends of the modules, the T-shaped member separates the ends of the adjacent modules and bonds, and seals the ends of the adjacent modules together.

53. (withdrawn) A solid oxide fuel cell stack as claimed in claim 52 wherein the T-shaped member has a plurality of apertures extending through the stem, the

apertures allowing reactant to flow from the passage in one module sequentially through the apertures to the passage in an adjacent module.

54. (withdrawn) A solid oxide fuel cell stack as claimed in claim 52 wherein the flanges have a maximum thickness adjacent the stem and decrease in thickness from the stem forming tapering surfaces and the ends of the modules have tapering surfaces to abut the flanges.

55. (withdrawn) A solid oxide fuel cell stack as claimed in claim 54 wherein at least one aperture extends through the T-shaped member between the tapering surfaces of the flanges, the at least one aperture allowing reactant to flow from the passage in one module through the apertures to the passage in an adjacent module.

56. (previously presented) A solid oxide fuel cell stack as claimed in claim 1 wherein the connector comprises a hollow member having two parallel slots in which the first end of one of the modules and the second end of one of the modules locate, the ends of the modules are open to allow reactant to flow from the passage in one module through the end of the module, to turn through 180° in the connector and to flow through the end of the adjacent module into the passage of the adjacent module.

57. (new) A solid oxide fuel cell stack as claimed in claim 1, wherein solid oxide fuel cells are present on both flat exterior surfaces of the modules.